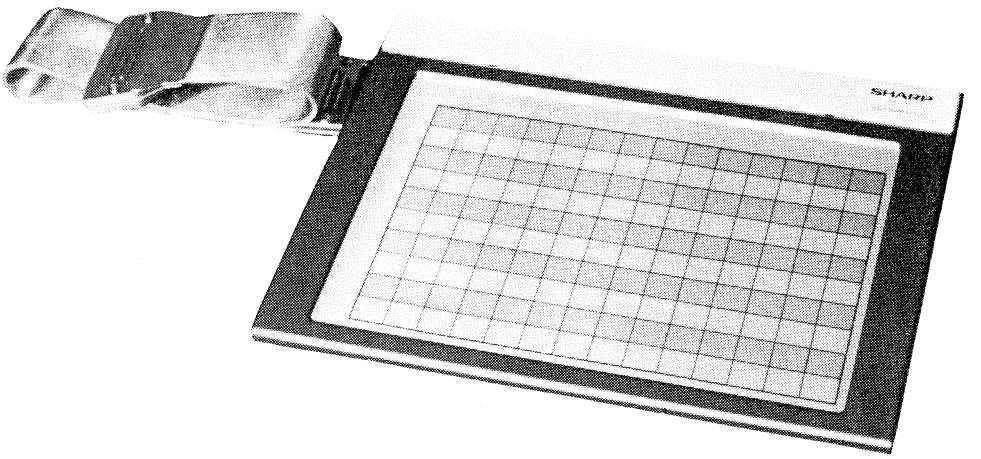
MODEL CE-153
Soft Key Board
(PC1500 Option)



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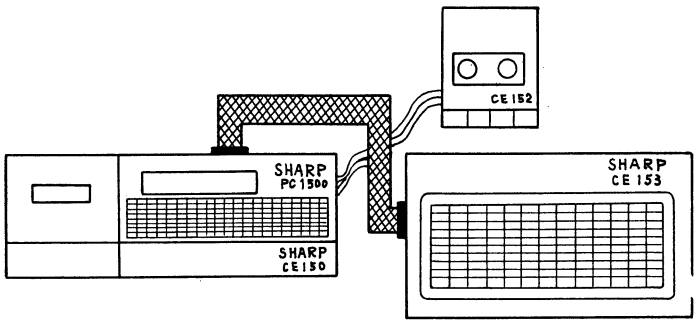
1. INTRODUCTION

The CE-153 Software Board has been developed to enhance easy accumulation of crossfooting and down totals in the PC-1500 Pocket Computer. Data entered on the keyboard of the CE-153 is transsferred to the PC-1500 together with the address signal to perform BASIC program execution in the PC-1500 on the basis of the address supplied.

2. SYSTEM CONFIGURATION



Required devices:

- PC-1500 . Personal Computer
- CE150 . . Printer/Cassette Interace Unit
- CE-151 . . 4K RAM Unit
- CE-155 . . 8K RAM Unit
- CE-152 . . Cassette Recorder
- CE-153 . . Software Board

When the machine language program stored in the CE-153 is loaded to the PC-1500 using the CE-152 Cassette Recorder and the CE-150 Cassette Interface Unit, it becomes ready to accept data entry on the key board of the CE-153.

(1) Enter "NEW & 44F0 [ENTER] " to go into the PROGRAM (PRO) mode.
With this the memory area is reserved for the system program. (1066 bytes)
NOTE: Save the program existing in the momory to the tape before entering the command, because an entire program contents will be erased after the command entry.

(2) Perform preparation to load the program from the cassette tape. (Tape on the cassette recorder and cueing, etc.)
Observe the same procedure as you normally do to load program.
See Instruction Manual of PC-1500 for reference.

(3) Enter "CLOAD [ENTER] " to start loading the system program.
The program starts loading after putting the message "CE-158 VER. 1" on the display.
When a prompt sign ">" appears on the display, it shows that the program has been loaded.
It will take about one minute to finish loading the program.

4. CAUTIONS

4 - 1 The following error may be met when the CE-153 is used.

1) ERROR 24 or ERROR 25
Above error may be met when the value in "<expression>" was not adequate in stating "NEW <expression>" – system program area not secured – or, a part of the system program might have been destroyed. In such a case, turn the power off and turn it again, then enter NEW0, NEW&44F0 (or 3CF0)" to load the system program again. The BASIC program will surely be erased.

2) ERROR 45
This error is encountered when "Z$(0)" was defined by DIM in the BASIC program used for the Software Board, except for "DIM Z$*80".

4 - 2 It is suggested to make duplication of the cassette tape for the service use in the following manner:

1. NEW 0 [ENTER]
2. NEW & 44F0
3. CLOADM
4. SCAVEM "ooo": 740C6, & 44E6
   NOTE: "ooo" represents the file name.

5. CHECKER SPECIFICATIONS

The check program in the cassette tape is recommended for your use to check operation of the unit. Operating condition of the CE-153 may easily known by this checker.

1) Outline of check method
   - Load in the PC-1500 the CE-153 machine language program and the check BASIC program using the CE-150 and CE-152.
   - Execute the program for the PC-1500 and make entry of the given procedure on the keyboard of CE-153.
   - The message "OK!" is put on the display when the check is finished.
2) Check program entry
   1. Turn the power off to PC-1500, then connect the PC-1500 with the CE-150 and CE-152.
   2. [ON]
   3. [CL]
   4. Set to the PRO mode.
   5. Push [N][E][W][&][4][4][F][0][ENT] .
   6. Set the machine language program tape on the CE-152 and turn it into the PLAY mode.
   7. Push [C][L][O][A][D][ENT]
   8. Enter the check program after pushing [C][L][O][D][ENT] .

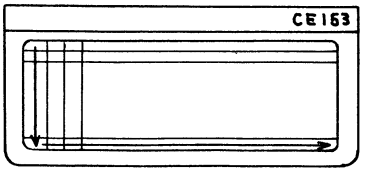
   With the above procedure, it terminates the program loading. If the program is not needed, you can disconnect the CE-150 after turning off the PC-1500.
3) Check procedure
   1. Turn the power off to PC-1500.
   2. Connect the CE-153 with the PC-1500.
   3. Turn the power on to the PC-1500.
   4. Set to the RUN mode.
   5. Push [R][U][N][ENT] .

CE-153 CHECK START ·····

   Push the key on the "0 0 0 0" position (upper left corner).
   Push the key on the "0 1 0 0" position

0 0 0 0
0 1 0 0
0 2 0 0
⋮

   After this push the key on the indicated position. Twenty three keys must be operated on the Software Board in the following sequence.

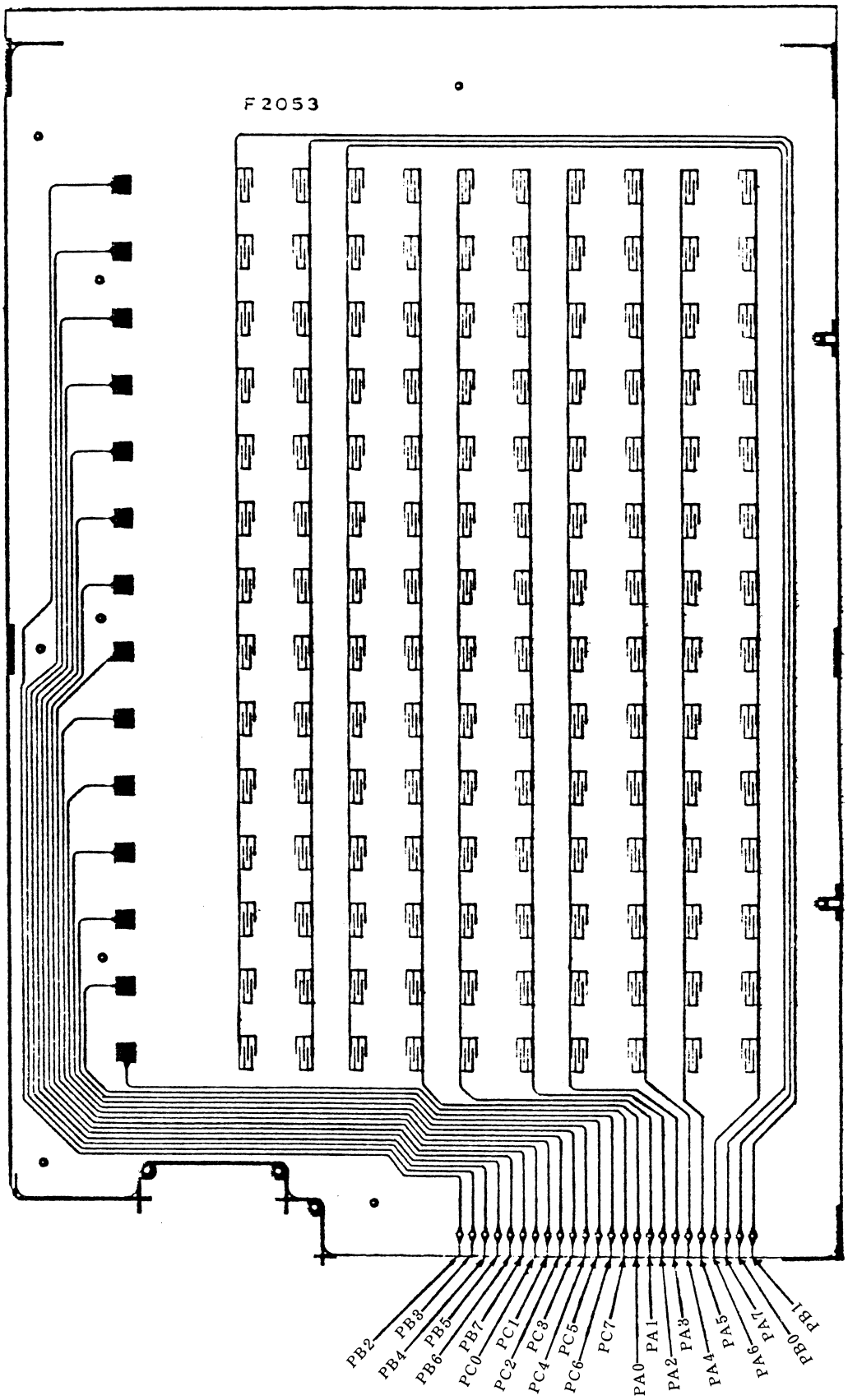


   6. Push the key on the "0 9 1 8" position.

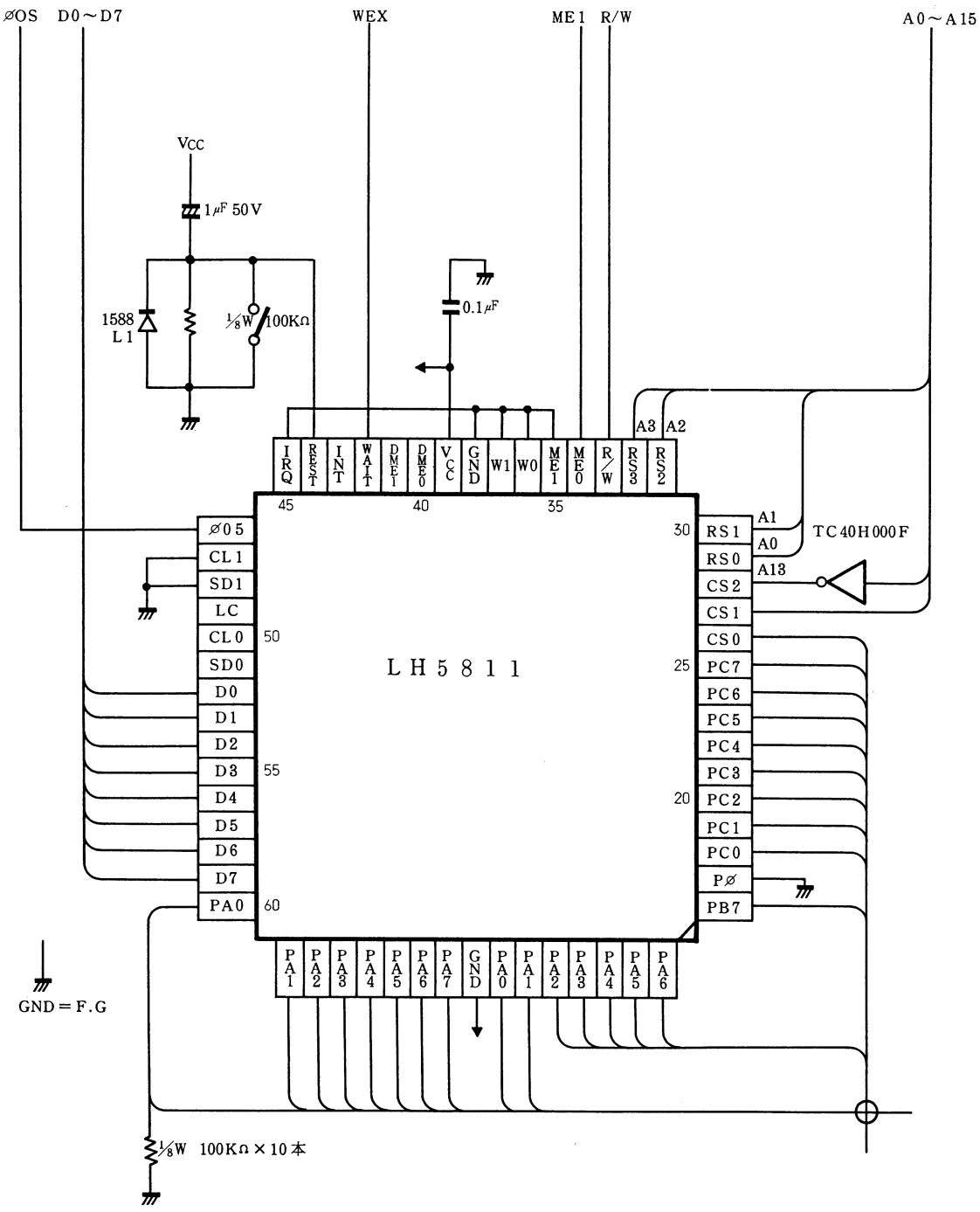
OK! CE153 KEY INPUT CHECK

   7. End of check.

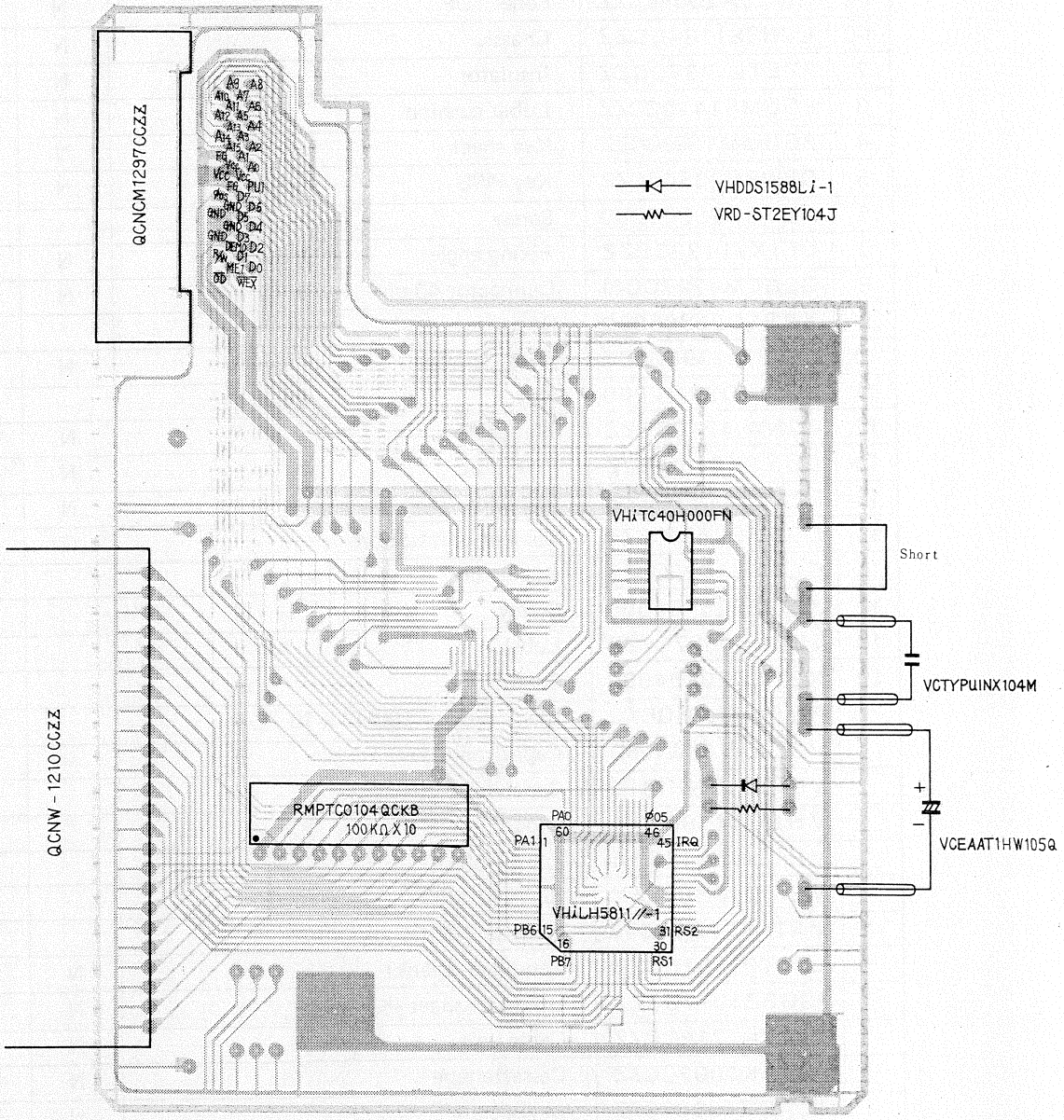
6. KEY PWB SIGNAL POSITION



7. CIRCUIT DIAGRAM

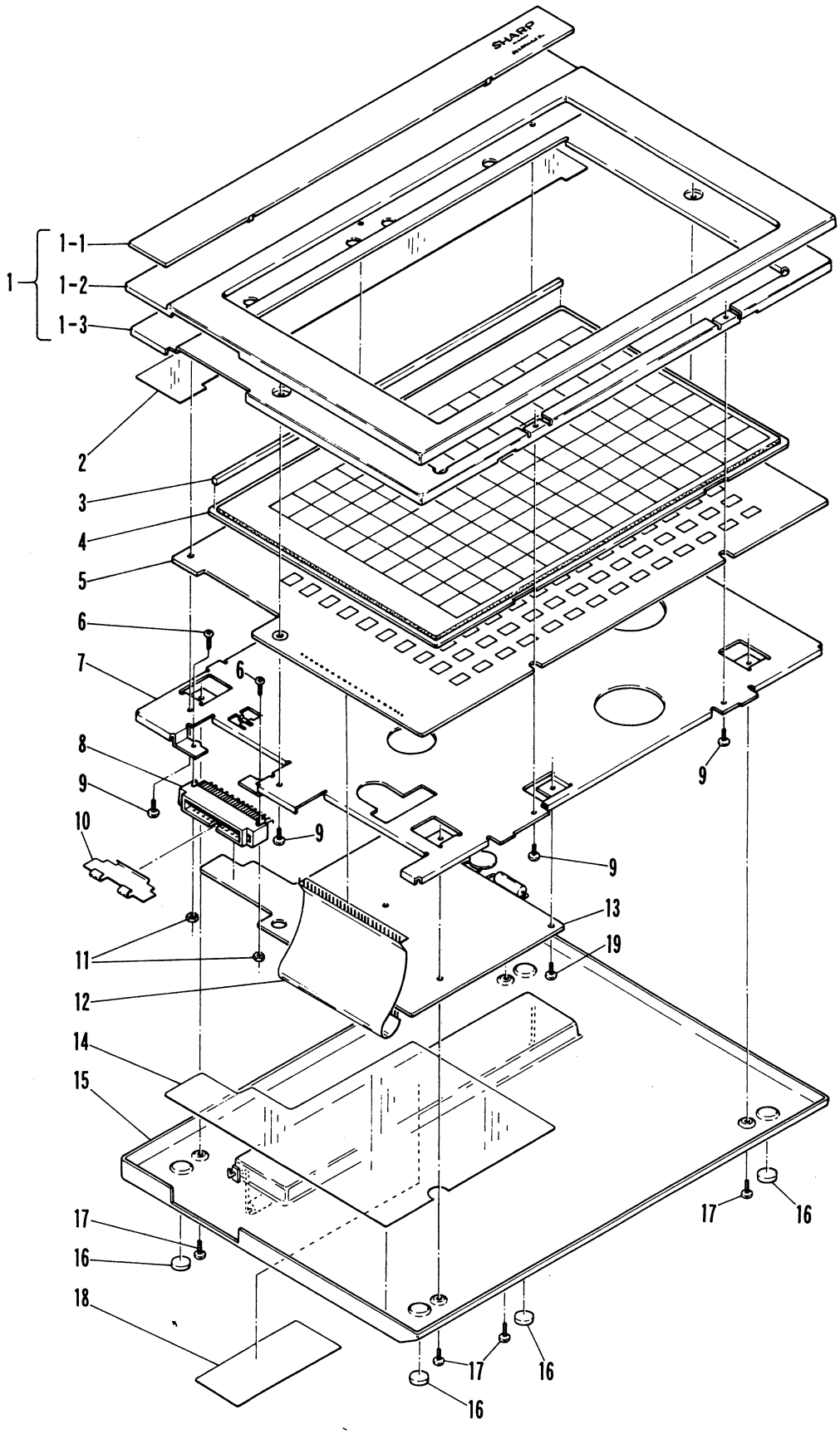


8. PART AND SIGNAL POSITION



9. PART LIST & GUIDE

NO.	PARTS CODE	DESCRIPTION	NEW MARK	PARTS RANK	PRICE RANK
1	DUNTG6554CCZZ	Cabinet unit TOP	N	D	AY
1-1	HDECA2040CCZZ	Dec, Panel	N	D	AW
1-2	HDECA2039CCZZ	Panel TOP	N	D	AT
1-3	LCHSS1124CCZZ	Chassis	N	C	AL
2	PZETL1437CCZZ	Insulator	N	C	AB
3	PGUMS1410CCZZ	Luber cushion	N	C	AB
4	PGUMM1399CCZZ	Key sheet	N	B	BC
5	QPWBF2054CCZZ	Key PWB	N	C	AW
6	XBSSD20P06000	Screw		C	AA
7	LFiX-1132CCZZ	Fixing angle	N	C	AL
8	QCNCM1297CC4J	Connector 40 pin	N	C	AW
9	XBPSD26P05000	Screw		C	AA
10	QTANS1398CCZZ	Earth terminal	N	C	AE
11	XNESD20-12000	Nut		C	AA
12	QCNW-1210CCZZ	Flat cable	N	C	AD
13	DUNTK6555CCZZ	PWB unit	N	E	BK
14	PZETL1442CCZZ	Insulator	N	C	AC
15	DUNTG6672CCZZ	Cabinet unit bottom	N	D	AT
16	GLEGG1022CCZZ	Luber foot		C	AA
17	XBTSF26P04000	Screw		C	AA
18	TLABB1657CCZZ	Label		D	AA
19	XBPSD20P04000	Screw		C	AA
	RMPTC0104QCKB	Block resistor 100kΩ x 10		C	AD
	VCEAAT1HW105Q	Capacitor 1μF		C	AC
	VCTYPU1NX104M	Capacitor 0.1μF		C	AB
	VHDDS1588L2-1	Diode		B	AB
	VHiLH5811//-1	LSi LH5811		B	AZ
	VHiTC40H000FN	iC TC40H000		B	AG
	VRD-ST2EY104J	Resistor 100kΩ		C	AA
	LPLTP1091CCZZ	Ten plate (Blank)	N	D	AK
	PSHEZ1077CCZZ	Guidance sheet (Key map)	N	D	AD
	QCNW-1218CCZZ	Cable unit	N	E	BL
	RTPEK1002CCZZ	Cassette tape	N	D	AT
	TCADZ1603CCZZ	Index card	N	D	AC
	TLABZ1645CCZZ	Cassette label LB-A	N	D	AB
	TLABZ1646CCZZ	Cassette label LB-B	N	D	AB
	SPAKA7062CCZZ	Packing cushion (Accessory)	N	D	AF
	SPAKA7063CCZZ	Packing cushion (CE153 body)	N	D	AD
	SPAKC7061CCZZ	Packing case	N	D	AG
	TiNSE3487CCZZ	Inst., book	N	D	AY
	TLABN1152CC02	No, label	N	D	AA
	UBAGC1298CCZZ	Soft case	N	D	AM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